SAFETY & HEALTH LEARNING ALLIANCE

Executive Order 13650 – Improving Chemical Facility Safety and Security

December 8, 2015

11:00 a.m. - 12:30 p.m. (EST)

Presenters

- **Jeff Wanko**, Occupational Safety and Health Administration (OSHA)
- **Lisa Long**, Occupational Safety and Health Administration (OSHA)
- **Amy Graydon**, U.S. Department of Homeland Security (DHS)
- **Reggie Cheatham**, U.S. Environmental Protection Agency (EPA)

Summary

Facilitator: Mike Lipka, Knowledge Officer, NASA Safety Center

Attendees: 48 (approximately)

Purpose of the Safety and Health Learning Alliance (SHLA): Share experiences and collaborate ideas across various government and defense agencies, related industries, and professional organizations for the mutual goal of achieving high levels of safety and health.

Goals:

1. Collaborate: Create a forum where people can get together with trusted advisors to learn more.
2. Concentrate: Accelerate the learning to get quick hits on timely, topical new ideas and approaches.
3. Context: The ability to be able to learn from your peers and gain that wisdom.
4. Connect: Establish networking opportunities.

The SHLA website at nsc.nasa.gov/SHLA/Events includes a video of the presentation. Please submit questions, comments, and event recommendations on the website or by emailing NASA-NSC@nasa.gov.

Introduction

President Obama signed Executive Order (EO) 13650 in August 2013 to improve chemical facility safety and security, and reduce risks to workers, communities and first responders. The Executive Order directed DHS, EPA, and the Departments of Labor, Justice, Agriculture and Transportation to work collaboratively to enhance operational coordination with the agencies, across all levels of state and local government; strengthen information sharing efforts; further expand outreach to industry, emergency managers, first responders and other stakeholders; and modernize policies, regulations and standards.

The five thematic areas of the report

1) Strengthening community planning and awareness
2) Enhancing federal operational coordination
3) Improving data management
4) Modernizing policies and regulations
5) Incorporating stakeholder feedback in developing best practices

Questions and Answers

Audience Question
Can you talk briefly about what information is available on the Risk Management Program (RMP)?

Cheatham (EPA)
Through its enforcement and compliance history online, EPA provides a top-level view of whether or not a facility is covered by the RMP program, that facility's location, and some other general statistics. The Tier 2 level data, which is usually of most interest, involves consequence planning. Some of the more detailed requirements of RMP are not available online. They are publicly available upon request. That's generally managed through a reading room or something of that nature. The website is epa.gov/echo, Enforcement and Compliance History Online (ECHO). You can generally find out if a facility is covered by RMP. There are about 12,500 in the universe; a much smaller universe than we are covering under EPCA requirements. But they are more rigorous.

Audience Question
(A participant who lives in southeast Texas is in the midst of many chemical plants where they're moving a lot of product via railroad.) When involving transportation of chemicals, how do we determine who is in charge of investigating the incident? NTSB? OSHA? EPA? CSB? How do we coordinate with each other to make sure work is not missed or duplicated? How are the regional working groups getting to a point where they understand who is in charge of investigating and coordinating and responses?

Cheatham (EPA)
All response starts local. There is no way for a federal entity to be first onsite to mitigate the hazards of an accident be it by rail or a plant explosion. The hope is that as we work with our LEPCs (Local Emergency Planning Committees) and our state emergency response commissions; that there is a recognition of a certain level of capacity and awareness at the first responder level to know how to engage, know how to notify the planning in that local area for evacuation, shelter, whatever it may be, until such time federal resources are brought in should they be needed. In the case of many of the inland accidents, be they by rail or other means, the response that usually comes into EPA is a request for assistance to coordinate the federal effort; and in the context of the coastal zone, it's the Coast Guard.

We usually are authorized to do those activities mainly under the National Contingency Plan (NCP). I say *usually* because there are other declarations that can come into play. That's for oil and hazardous substances. After we've gotten into a response mode, we begin to understand some of the jurisdictional issues and the responsibilities become more clear, whether it's going to be the Department of Transportation Pipelines and Hazardous Materials Safety Administration (DOT PHMSA) or Federal Railroad Administration (FRA), or a whole host of folks that could be involved; state transportation regulations on the rail.

Going from the response side of things where you are truly trying to mitigate and reduce the hazard to the public and the environmental resources, to the actual investigatory and evaluation of the event, there is a process that takes place. As we go through that, there are certain entities that have jurisdiction and control over conducting those investigations. EPA yields to NTSB (National Transportation Safety Board) and many others even though we are responsible for coming in on some of the response to mitigate the immediate hazard.

Audience Question
The regional working groups are mainly involved in the coordination and response side or the investigatory side?

Long (OSHA)
It's some or all of the above. I should say that the Executive Order specifically did not include transportation. That's why DOT doesn't sit on this working group. However, we have pulled them in at various times so they are aware of what we are doing and have that impact their work. Some of the regional working groups also have DOT contacts to do that as well. If there was an incident such as this on a railroad, it would probably be a DOT type of response, but they would be aware of the working group and can pull in some of the regional things just because there are other entities listed in the question, such as NTSB and Chemical Safety Board (CSB). I think we can say that both of those are independent agencies.

If it was a railroad accident, it would most likely be NTSB that would be investigating and coordinating their activities with the agencies on scene. They have Memoranda of Understanding (MoU) to determine how they will work with the agencies there. If it is at a fixed facility, it could be the Chemical Safety Board that is independently investigating it. They also have Memoranda of Understanding in place to talk about how they will work with the agencies there. In some cases, there is not just one agency in charge, but there are agreements in place that determine how the agencies might work together.

Audience Question
Understanding that a lot of the EO was the result of the ammonium nitrate mishap at West Fertilizer, and NASA does not use ammonium nitrate but stores and uses a lot of other hazardous chemicals and rocket propellants, how many changes for other chemicals besides ammonium nitrate will be proposed and may impact NASA? This question is generally PSM (Process Safety Management).

Long (OSHA)
It's true that the accident at West, Texas was what urged the President to issue the Executive Order. However, it's clear that the incident at West, Texas was just the latest of many catastrophic incidents that had happened in the U.S. So we were asked to look at chemical safety and security in general, broader than just ammonium nitrate and what happened at West, Texas. With that in mind, with PSM specifically, when we issued the RFI (Request for Information), we had 14 different issues on there. EPA had 19 different issues; theirs was a little bit further along than ours. They had a little bit more time to think. We are coordinating between the two agencies pretty well, so anything they're considering, pretty much we are considering as long as it's in our jurisdiction.

If you go to the EO website, you can find more information about the specific things we are considering. You also can see the RFI. You also can go to the docket and see some of the questions. These are things like expanding the scope of the standard. That could either be by adding chemicals to the Appendix A list that aren't currently there. AN (ammonium nitrate) is one prime candidate. [We are] looking at reactive chemicals either as a class of chemicals or adding substances to the list. We are considering oil and gas upstream activities to PSM coverage. Those are things that had nothing to do with West [Fertilizer], but we recognize there is a gap there.

In addition, we are also looking at changing some of the requirements of the PSM. So this might mean adding some additional management system elements. We've identified some of those in the RFI. But we look to organizations like the Center for Chemical Process Safety (CCPS) for examples of that. Because obviously, PSM was originally based on industry best practices such as those you'd find within CCPS, and they have added some over the years because they feel more are necessary.

We are looking at whether we should add things, as well. We're looking at maybe enhancing Process Hazard Analyses (PHAs) by including the safer alternatives, enhancing employee involvement, and perhaps considering metrics and corrective actions. Then there are some things we can consider…clarifications that don't really change the standard, but we've noticed they are unclear. One of those examples would be management of organizational change. We require management of change. We also require management of organizational change but we don't use those words. You have to understand how the standard works in order to do it. We look at clarifying some of those things. There are probably too many for me to go through everything that's on that list, but I would encourage you to go to the [OSHA] website and take a look at the RFI. Then, you'll see where we are going with it. In addition, as soon as the SBREFA (Small Business Regulatory Enforcement Fairness Act) panel starts, everything we are considering in the SBREFA will become public as well.

Audience Question
I guess there are no other specific chemicals that have been mentioned right now?

Long (OSHA)
There are a few we are considering that come from various places including what EPA has done and other things like that. But we don't have a list right now of what those are.

Cheatham (EPA)
For clarity purposes on the EPA-side RMP, we are not in the current regulatory effort specifically looking at chemicals. If OSHA takes action under PSM, we are obviously going to take that into consideration because of the close connections between PSM and RMP. What you folks at NASA need to understand from our vantage point is that we are looking at it three different ways. If you look at the 19 elements proposed in the RFI, it breaks down along 1) "What can facilities do to prevent accidents?" Very important. 2) "What can facilities do to be prepared for an accident?" Very important. And then, should there be an accident, 3) "What happens after the accident?" What actions are we looking at that may change for the facility to take in the investigatory role and other aspects?

That's a high-level look at it, but I think for good process engineers and people working on some of the things at NASA, it's not the chemical that is necessarily going to be the issue; it's the overall management system that you would want to be focused on in making sure you're testing for the robustness and rigor.

Graydon (DHS)
Appendix A is something we are looking at for the rule-making process. If there is a chemical you think should be added, let us know. If there is one you think should be deleted, that would be useful information as well. For best practices, we've done a lot of work in terms of working with stakeholders; on the front end, making sure we got a lot of feedback from people about what was working and what didn't work, and what we can do better.

We have tried to build a repository based on some of these comments on how we can get best practices. We built a Best Practice website. We are looking for more submissions. They fall into a couple of different categories. Voluntary best practices, documented, measurable, repeatable, and subject to evaluation. We are looking for practices that fall into technology, are related to training, safer alternatives, process safety and administration.

We've come up with those categories to hopefully make it a little easier to sort and things like that. For example, some of the best practices we currently have on the website involve sheltering in place and what you can do; some variations on that to include some training for children. We have leveraged what the Chemical Stockpiling

Emergency Preparedness Program (CSEPP) has done with training for children, as well as materials in different languages. We are always on the lookout for best practices and we would hope that if you have some in mind that you would share them with us. There also have been some documents that the working group has put out.

Cheatham (EPA)
A lot of the things we work on, we work on together. On the safer alternatives front, back in June [2015], EPA and OSHA published the Chemical Safety Alert for Safer Technology and Alternatives. This was designed to explain the concepts, and give some examples and practices and principles that have been observed by trade associations, by our own inspectors, and to set the bar. It's basically putting a baseline out there for the understanding of these concepts among the regulated entities we engage with.

The intent here was to take that and recognize that down the road we need to do a little bit more on the practical side on how this applied and how it works in certain industries. The hope would be that we build from this, and get feedback from our users and stakeholders. We could then take this information and use it in our future guidance efforts and further refine that as a federal position.

Long (OSHA)
The other things we have worked on specifically apply to ammonium nitrate. I know that NASA doesn't have any so I'll go quickly and say we did issue the AN Alert. We got some feedback during the Executive Order process. We issued another one in June of this year. We also have a lot of guidance just from OSHA because we cover ammonium nitrate already on how our standards work. That's not so much an issue for NASA.

Graydon (DHS)
The website on the screen is where we have the best practices. We are always looking for more, so if anyone wants to share some, that would be great.

Long (OSHA)
This [website] is posted by OSHA. I mentioned the website is osha.gov/chemicalexecutiveorder. It's set up by the five thematic topics we talked about. You can click there and find the report itself. In the report is the action plan. We tried our best to update things as we go along, so you can see when and where we make progress. We've also got other resources on there like several of the repositories we've talked about and the best practice repository. If you go to this website, you also can sign up for an email that DHS sponsors. It's EOChemical@hq.dhs.gov. We use that email address to distribute things like if we are going to have a stakeholder meeting or something like that. You can get a notice pushed out to you via email if you sign up through that email address.

Audience Question
(NASA caller from Virginia) Have you had the opportunity to deal with all the federal response participants from NASA such as the emergency preparedness managers out of security, environmental protection persons, as well as the Chief Medical Officer?

Cheatham (EPA)
One of the things we do know is the federal government, definitely in most of their operations, comes forward as a responding entity. So the entities you have described are ones that have been designated under the NASA rubric to provide various response capabilities for the operations. I'm assuming you are at NASA Langley or Wallops. Be that the case, many industries operate in local communities without response capacities.

Where you have described these entities we have not personally coordinated with, the hope would be that those entities have some familiarity and awareness with their local emergency planning groups and the state groups, the state emergency response commission, so that they know you have the capability to fully respond to any event based on the chemicals you use or store onsite. That would be the most important part of that.
For us, as an Executive Order working group at the national level, if there is a need to engage with the federal response community, that would most likely go to the National Response Team (NRT).

Audience Question
Are there any more public forums or RFIs scheduled in relation to changes in the PSM standard?

Long (OSHA)
For the PSM standard, there are no RFIs. The next step is the one we are engaged in now, which is the SBREFA panel, which specifically targets small businesses. That panel should convene in January [2016]. However, when the panel convenes, you can see all of the work becomes public and you can sit in on the conference calls. That's an opportunity to listen. Beyond that, the next step in the rule-making process would be proposed rules. There is no timeframe set yet for a proposal. We go one step at a time through the Federal Register. You can continue to look in the Federal Register for that kind of information and see where we are next.

People outside OSHA probably don't know this but OSHA rule-making takes, on average, six to eight years. If you consider we might be a year or so into this, we have a long road [ahead of us]. There will be many opportunities for public input. I can't tell you exactly when they will be. I just encourage you to follow the process.